

2010-2011 Minnesota Weatherization Program

Glossary, Terms and Explanations

Please Note: This glossary contains definitions, acronyms and abbreviations related to the Minnesota Weatherization Program. It also contains Department of Commerce terms, descriptions of federal funding agencies, other program-related terminology, and Internet links. The **Weatherization Field Guide** has a glossary for many of the technical terms of weatherization work practices. (The **Minnesota Mechanical Systems Field Guide** does not have a glossary.) Please share your suggestions to improve the definitions and details for this Minnesota Glossary.

- A16** An Energy Program's special advocacy, client budget and energy counseling service. See Assurance 16.
- ACH** Air Changes per Hour (ACH). The number of times in one hour that the air in a dwelling is completely replaced with outside air.
- Achieved Savings Assessment Program (ASAP)** The Achieved Savings Assessment Program (ASAP) was a software program that measured energy savings and furnace run times for weatherization homes. It was designed by Minnesota and provided information on a pre and post basis for insulation and mechanical work on eligible homes. It was referred to as the Data Logger Program and is no longer used.
- ACI** Affordable Comfort, Inc. A nonprofit organization providing national training for residential building, housing and weatherization professionals. Founded at the Affordable Comfort Conference in 1986, the organization is a leader in defining ways to make homes more energy efficient and has excellent links and resources. <http://www.affordablecomfort.org/>
- ADA** The Americans with Disabilities Act. The law and language which describes conditions regarding public facilities being handicapped accessible, including eHEAT intake centers and the requirements for their accessibility.
- Advocacy** A philosophy that encourages specific steps taken by agency staff on behalf of eligible households to secure resources or services to meet or protect basic household needs.
- AFUE** See Annual Fuel Utilization Efficiency. See also SSE.
- AGA** American Gas Association. A national organization of natural gas producers and suppliers. <http://www.aga.org/>

Air Barrier	Any part of the building shell that offers resistance to air leakage. The barrier is considered effective if it stops most air leakage. Air barriers are often a water-vapor-permeable woven product. These keep outdoor air out while letting water vapor escape from the wall cavity. Interior air barriers are important for stopping moisture-laden air from entering the wall cavity from a dwelling's interior. Exterior air barriers are important for reducing air leaks, convection and air intrusion into insulation materials.
Air Changes	The number of times that air in a structure or dwelling will change in a one hour period of time.
Air Exchange	The total building air exchanged with the outdoors through air leakage and intentional ventilation.
Air Handler	A steel cabinet containing a blower with cooling and/or heating coils connected to ducts which transports indoor air.
Air Infiltration Barrier	A material that stops almost all air traveling through a building cavity, but may allow moisture to pass through the cavity.
Air Sealing	A weatherization term that deals with activities to reduce air bypasses or air leakage in a home. The progress of air sealing activities is measured by blower door readings. "Major air sealing" includes sealing bypasses and other large openings between the heated and unheated spaces. "Minor air sealing" includes sealing small air openings with materials such as caulk, weather stripping and sash locks.
Air Tightness	A measurement of the relationship between the exchange of inside air in a dwelling replaced at a standardized rate of exchange with fresh outside air—measured in cubic feet per minute (CFM).
Air-to-Air Exchanger	A tool designed to 'recover' either heating or cooling in a dwelling and improve air quality. A properly sized air-to-air exchanger will replace the air inside a home approximately six (6) times per day. See Heat Recovery Ventilator and also Energy Recovery Ventilator.
Ambient Air	The surrounding air. It usually refers to room air in the vicinity of a combustion appliance or furnace.
Annual Fuel Utilization Efficiency (AFUE)	A laboratory derived efficiency rating for heating appliances which accounts for chimney losses and cycling losses but not distribution losses. The AFUE is the most widely used measure of a furnace's heating efficiency. It measures the amount of heat actually delivered to a dwelling compared to the amount of fuel that must be supplied to the furnace. A furnace that has an 80% AFUE rating converts 80% of that fuel to heat. See also SSE.

- Annual Return** The yearly energy cost savings of a conservation measure or appliance, divided by the initial cost needed to achieve the savings, and expressed as a percent. See also SIR Calculation.
- Appendix A** Specifications and standards for weatherization materials set forth in the Department of Energy (DOE) WAP Rule 10 CFR, Part 440.
- Appeals** A description for the formal process of resolving disputed energy program decisions. Alleged or grieved clients must follow procedures outlined in the Energy Assistance Program Policy Manual and Weatherization Policy Manual to initiate the process. Appeals are handled first at the local agency level, and if not resolved locally, they are sent to the State Appeals Officer for further action.
- Applicant** A household or client requesting services or other assistance from a local grantee or delivery agency.
- Application** A standardized form provided to clients requesting weatherization or energy assistance. The form requests information used to determine eligibility, including income, household size, fuel costs and housing type. Intake and eligibility for both EAP and WX is handled through eHEAT.
- Aquastat** A heating control device that controls the burner or the circulator in a hydronic or water heating system.
- ARRA** The American Recovery and Reinvestment Act. The federal economic stimulus funding which began in May 2009. Over \$5 billion was provided to weatherization programs from ARRA. Information, state mapping and funding details are at: <http://www.recovery.gov/>
- ART** A numerical measurement that rates a dwelling based on energy consumption, taking into account house size and heating degree days. An “ART” of seven (7) or higher is considered “high consumption” for certain CIP eligibility purposes. The calculation takes a dwelling’s total space heating for the season and, converted into BTUs, divides that amount by Heating Degree Days (HDD) and then divides that figure by the square footage of living space. The term is named for the engineer who designed the calculation. It was a Minnesota specific term. In NEAT it is now referred to as the Heating Energy Index Calculator.
- Asbestos** A naturally occurring silicate mineral with long, thin fibrous crystals. Since the mid 1980s, most uses of asbestos have been banned and asbestos exposure is a major health concern. Information and links at: <http://www.epa.gov/asbestos/> and also <http://www.osha.gov/SLTC/asbestos/>

- ASHRAE** The American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE). A national professional association that publishes the **ASHRAE Handbook**, a four-volume resource for HVAC technology. It is available in both print and electronic versions. The volumes are *Fundamentals*, *HVAC Applications*, *HVAC Systems and Equipment* and *Refrigeration*. One of the four volumes is updated each year. <http://www.ashrae.org/>
- ASHRAE 62.2** An ASHRAE standard governing ventilation in homes and having wide impact for code and energy conservation. Rick Karg's PDF from a 2006 Weatherization conference is a good reference guide for summary information on the standards. http://www.affordablecomfort.org/images/Events/20/Courses/501/Karg_Parkhurst_Benewicz_TEVE.pdf
- Assets, Liquid** Household resources that are cash or easily converted to cash. Assets are not a factor in determining eligibility for EAP or the weatherization program in Minnesota.
- Assurance 16** Minnesota Energy Programs services focusing on budget counseling and providing additional financial resources for prioritized households. It allows states to spend up to five percent (5%) of their LIHEAP block grant for services enabling households to reduce their home energy costs and needs.
- ASTM** American Society for Testing and Materials. An international organization for standards and testing. It is a source of information and publications covering metals, petroleum, construction, the environment, building codes and more. On-line publications and resources are available at: <http://www.astm.org/Standard/index.shtml>
- Attic Walls** Are either "enclosed" walls that have no exposed framing on either side or are "open" walls that have exposed studs or other exposed framing.
- Audit (Energy Audit)** The process of identifying energy conservation measures in a building or dwelling unit. This is often referred to as an energy audit. All weatherization (WAP) energy audits must be done using the Weatherization Assistant (WA) software. The audit takes place after household eHEAT eligibility is determined. Energy audits are also completed for gas and electric utilities' customers, but those may or may not use the WA software.
- Audit Event** An eHEAT term for setting up an electronic file where an energy audit is completed on a dwelling using the Weatherization Assistant (WA) software. Work orders are attached to an audit event as part of the client file.
- Auditor** A weatherization worker that assesses a dwelling for potential weatherization services. Auditors inspect building shell and mechanical systems; conduct diagnostic, health, and safety tests; record information of walls, ceilings, floors, windows, doors, and mechanical systems; enter data into a computerized energy audit; and prepare work orders to ensure that cost-effective conservation measures are installed properly.

Authorized Signature	A contractual legal term referring to the State of Minnesota's requirement that a grantee have officially recognized individuals who sign contracts or request cash on behalf of a grantee agency.
Backdraft Damper	A damper installed near a fan that allows air to flow in only one direction. See also Draft Diverter.
Backdrafting	Prolonged spillage of combustion by-product gases back into a dwelling. In weatherization, any spillage over three minutes is considered prolonged.
Backer Rod	Polyethylene foam rope used to fill an opening before insulation or air sealing or caulking is put in place.
Backup Heat Source	An Energy Program term for a secondary heating system used to supplement the primary furnace or main heat source in a dwelling or living space.
Backup Matrix	An eHEAT guideline or grant table used when a household's primary fuel consumption costs for the previous year are not available. It is similar to the Cost Based Matrix, but contains actual benefit dollar amounts, not percentages of the household's consumption cost to determine an EAP grant amount.
Balanced Heating System	An HVAC term describing the balancing of a heat distribution system. It assures that all areas of a dwelling served by the same heating plant, or zone of the heating plant, receive adequate and balanced heat.
Balloon Framing	Building framing in which the studs are continuous from the foundation to the rafter plate. Second floor joists are supported by a ribbon board which is usually mortised into the studs. Unless fire blocking is installed, this type of framing creates an open wall cavity from the attic to the sill.
Band Joist	An outermost joist around the perimeter of the floor framing on site-built construction. See also Rim Joist.
Baseboard Heater	As a type of heating equipment, a system in which either electric resistance coils or finned tubes carrying steam or hot water are mounted behind shallow panels along baseboards. Baseboards rely on passive convection to distribute heated air in the space. Electric baseboards are an example of an "Individual Space Heater."
Baseload Measures	An Energy Program term for specific conservation measures that reduce "base" loads, the constant energy demands of a dwelling unit. An example is compact fluorescent lighting. Baseload measures are not solely electric. Certain WAP programs may designate the installation of new appliances, such as a gas water heater, as a baseload measure. It can also refer to baseload demand, which is the minimum amount of power that a utility or distribution company must make available to its customers.

Batt	A blanket or roll of insulation material. Fiberglass is the most common batt used, but batts can also be made of cotton or other material. Batts may have a paper backing that should always be installed on the warm side.
Biomass	Renewable fuels that includes trees and other crops and residues, solid waste, sewage, and liquid fuels derived from agricultural products. Common energy sources derived from biomass are landfill gas, anaerobic digester gas, methane, and biofuels including biodiesel, bio-oil, and ethanol.
Blower Door	A weatherization tool that blows or pushes a fixed amount of air at specific air pressure (positive or negative at 50 pascals as a standard measurement) in order to calculate the number of cubic feet of air moving through a dwelling per minute (CFM50).
Blower Door Testing	Tests or measurements made to determine air leakage in a dwelling and duct leakage in heating distribution ductwork. It is also used to pinpoint problem areas of leakage.
Boiler	A water-based heating system that circulates hot water or steam through a distribution or pipe system in a dwelling.
Boot	A duct section that connects a heating duct and a register or connects round and square ducts.
BTU	British Thermal Unit (BTU). One BTU is equal to the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit. One unit of natural gas, one hundred cubic feet, or one CCF contains 100,000 BTUs. MBTU stands for one million BTUs. And MBTU is occasionally expressed as MMBTU, which is intended to represent a thousand thousand BTUs.
Budget Plan	An agreement between the household and the utility company or fuel supplier that allows the household to pay the same amount for fuel for each month for a number of months.
Building Science	The branch of science dealing with physics and the flow of energy and moisture in buildings.
Building Shell	A weatherization term usually referring to the outside wall or protective “shell” of a home or dwelling. Shell measures in weatherization work often describe the wall and attic insulation activities and air sealing activities. Sometimes referred to as the building envelope.
Building Tightness Limit (BTL)	The lowest rate of air sealing tightness suggested for a building to protect the structure and the health of the occupants. It was once but is no longer used as a limit figure for air sealing benchmarks. It is also the minimum needed to insure the safe operation of a mechanical system in a house.

Burner	A device, usually for heating a dwelling that facilitates the combustion of a fuel, such as natural gas, oil or LP.
Bypasses	Passageways from a dwelling's heated space to the outside. Attic bypasses are a major source of heating or cooling energy losses.
Callback Event	An eHEAT term where a WAP event is created, but solely pertains to needed activity or work that was part of a previously completed event which is reported as 'locked' in the WA software.
CAMIS	Community Action Management Information System. The statewide organization that helps plan and design software applications and data systems for the Minnesota Community Action Agencies.
Can't Reach 50	A factor that extrapolates air flow at lower house pressures to air flow at 50 pascals house pressure difference. Used in blower door diagnostics and cubic feet per minute (cfm) measurement calculations.
CAP	Community Action Program (CAP). A network of non-profit organizations that began with the War on Poverty under President Johnson's Administration in the late 1960s. They helped to form the early basis for grass-roots advocacy for poor people in America. CAP agencies administer weatherization and Energy Programs to low income communities. See also MCAA.
Capillary Barrier	A material or air space designed to stop capillary action from carrying water or moisture into a building or dwelling.
Capital Gain	A tax or Internal Revenue Service (IRS) term for the "gain," or money made on investments or stocks or other property after it is sold. Generally, it is the difference between the original purchase and selling price of certain property. It may be a factor in eHEAT applicant income eligibility.
Carbon Dioxide (CO₂)	One of two main products of complete combustion of a hydrocarbon (the other is water vapor). It is commonly referred to by its chemical formula, CO ₂ .
Carbon Monoxide (CO)	An odorless and colorless gas produced by incomplete combustion. Its chemical formula is CO. It is caused by a lack of air to support combustion or impingement of the flame. See also Carbon Monoxide Safety Association.
Carbon Monoxide Safety Association (COSA)	This association is a national trainer and resource for local and state licensing authorities and contractors for continuing education (CEU) validation on carbon monoxide (CO). Their instructors, as well as calibrations of testing equipment, and training sessions have been utilized by Minnesota as well as other states. Their web site has an extensive list of links related to the topic of carbon monoxide. http://www.cosafety.org/

Carryover	Financial term referring to unspent program funds remaining at the end of a fiscal or program year. These funds must be returned to the State as part of a fiscal closeout and can be redistributed or “carried over” to the following year, depending on funding rules or laws.
Cash Management	A Department of Commerce general fiscal term for local agencies spending funds and requesting money from the State while meeting federal and state guidelines.
Cash Request	The formal process a local agency or grantee uses to request funds from the State or from another funding agent. The process is electronically managed in eHEAT by DOC for all Energy Program grantees.
Categorical Eligibility	A federal program eligibility term allowing low income households whose individual members receive specific benefits (such as SSI or TANF) to be automatically eligible for DOE funded weatherization, even if the household is over Minnesota Energy Programs income guidelines.
CAZ	Combustion Appliance Zone. The area where vented combustion appliances are located. Can be inside or outside the air pressure boundary of the dwelling.
CCF	The abbreviation for 100 cubic feet. This is the basic measurement for one unit of natural gas, which is a hundred cubic feet and contains 100,000 BTUs of energy. Gas consumption and monthly bills are recorded in CCF or MCF, a thousand cubic feet.
CEE	Center for Energy and the Environment (CEE). A Minnesota non-profit agency providing energy, environmental and housing rehabilitation services to utilities, private corporations, neighborhood organizations, municipalities and public agencies. The services include financing, energy audits, technical research and training, as well as program design and evaluations. http://www.mncee.org/
Cellulose Insulation	Insulation made from newspaper or wood waste. It is treated with a fire retardant. Cellulose insulation is plant fiber used in wall and roof cavities to separate the inside and outside of the building thermally and acoustically. The Federal Consumer Products Safety Commission sets safety standards covering four product attributes of cellulose insulation: settled density, corrosiveness, critical radiant flux, and smoldering combustion. Boric acid is generally used as the fire retardant in the product. It is not used with mobile homes due to its weight factor.
Center for Sustainable Building Research	The University of Minnesota’s Center for Sustainable Building Research (CSBG). The Center promotes regional leadership, management and funding to support research, outreach and publications on sustainable building. http://www.csbr.umn.edu/

Central Heating System	Refers to the primary heating system of a dwelling unit, including the heat producing appliance, the return and supply system for heat distribution and a vent or chimney for carrying combustion gases out of the home. Central heating systems usually do not include wood stoves, kerosene heaters, space heaters or electric baseboard heating units.
Certification	An eHEAT intake process traditionally used to determine that an Energy Program application contains all the necessary information and documentation required for eligibility. It also serves as a “checks and balances” system to prevent fraud at the local level, since it requires a separation of duties, i.e., checking or reviewing the application separately from the individual who originally took the client application.
CFL	Compact fluorescent lamp. CFLs radiate a different light spectrum from that of incandescent lamps. New phosphor formulations have improved the color of the light emitted by CFLs so that the best ‘soft white’ CFLs are now similar in color to standard incandescent lamps. The ENERGY STAR web site has additional information at: http://www.energystar.gov/index.cfm?c=cfls.pr_cfls
CFM	Cubic feet per minute. Used as a measurement of airflow. It is also the abbreviation for measuring air flow for venting and fans.
Child	A person aged 19 years old or younger for WAP eligibility. Households having at least one person in this demographic grouping are considered a ‘household with children’ for DOE reporting and eligibility purposes.
Chimney	Masonry, metal or plastic pipe or passageway for discharging flue gases to the outside. This is sometimes referred to as a vent.
CIP	Conservation Improvement Program (CIP). A Public Utilities Commission (PUC) and Office of Energy Security (OES) program designed to address the State’s requirement that utilities allocate resources for conservation activities for customers, including specific spending or savings targets for low-income households. CIP grantees generally use the protocol of the Weatherization Assistant. CIP funds are designed to supplement weatherization work and expenditures on eligible dwellings and can also be targeted to reduce household electric consumption. (An example of how CIP funds can be used to supplement weatherization is the Otter Tail Power program.) Information on-line is at: http://www.otpc.com/SaveEnergyMoney/ConservationImproveProg.asp
Clean and Tune	A set of procedures used by heating contractors to clean and ensure safe operation of furnaces or boilers, as well as adjusting or tuning their efficiency ratings to set standards and local energy or municipal codes. Within the WA software, the ‘tuning’ portion is an HVAC measure and has an SIR of at least one (1). The ‘cleaning’ portion is typically charged to Health and Safety and does not need an SIR.

Client Education	Specific steps a household can take to understand and reduce energy consumption as well as caring for weatherization measures, appliances and heating systems. It may also refer to budget counseling, community referrals, or specific advocacy on behalf of meeting a client's needs.
Closeout	A fiscal or accounting description for ending and reporting the final tracking of expenditures for a specific fiscal year and program.
CO Free Air	Is a calculation in parts per million of the 'as measured' carbon monoxide (CO) in flue gases. It is a unit of measurement designed to compensate for the excess air supplied to the combustion process. Excess air dilutes the percentage of CO in the flue. CO air free readings are always higher than the 'as measured' CO reading. CO free air is only used when testing CO in flue gases. Measured CO is used for both flue gas and ambient air testing of carbon monoxide and is not a calculation.
CO Level	Carbon monoxide (CO) measurement. This specific by-product of incomplete combustion is dangerous, even deadly, if found in high concentrations inside the living spaces of dwellings. It is measured in parts per million (PPM). There are set safety standards for various CO levels. See EPA http://www.epa.gov/iaq/co.html and the COSA web site http://www.cosafety.org/
Cold Weather Rule	A State of Minnesota statute governing disconnection policies of residential heating sources from October 15 through April 15. Propane and delivered fuels are not included in these protections. Information on the PUC rule is at: http://www.puc.state.mn.us/PUC/consumers/shut-off-protection/index.html
Combustion Air	A general HVAC term describing the primary and secondary air required for fuel-burning appliances to complete the combustion process. See also Make-Up Air.
Combustion Analyzer	A device used to measure the steady-state efficiency of combustion heating units. See SSE and AFUE.
Combustion Efficiency	Synonymous with fuel-burning efficiency or Steady-State Efficiency. See SSE and AFUE.
Combustion Test	A measurement performed to determine the efficiency at which a heating appliance is operating at steady state. A combustion analyzer is used to do the testing. An excellent resource and training guide on combustion analysis and testing is: http://www.bookmarki.com/Combustion-Analysis-and-Fuel-Efficiency-p/1930044259.htm
Completion	A weatherization job is considered a completion after all the work passes a final inspection. For reporting purposes completions are counted in the month of the latest final inspection. The WA software also requires that the audit be set to the locked status in order to be counted as complete.

Completion Certificate	A form provided by the local agency that requires the signatures of both a vendor and the homeowner involving mechanical or WAP conservation work. It indicates that the client is satisfied with the vendor's work. Completion of the form is necessary before the local agency can make a final payment to the contractor or vendor.
Compliance	An agreed upon set of standards used by the state to measure grantee performance regarding specific programmatic tasks or processes. Non-compliance with contract requirements can result in withholding program funds to a grantee.
Condensate	Vapor condensed back to a liquid, typically found with high efficiency furnaces. Requires tubing to allow for flow. Systems usually have a condensate pump.
Condensation	Liquid water that is formed when water vapor is cooled enough to convert it from a gaseous state.
Condenser	The coil in an air conditioning system where the refrigerant condenses and releases heat.
Conditioned Space	The space within a thermal envelope or boundary that is deliberately heated or cooled.
Condominium	A legal or structural term for two or more dwelling units whose shared walls and common land is owned by a corporation or association.
Conduction	The transfer of heat through a material. Resistance to heat transfer or heat loss is measured by the R-Value given to various weatherization materials.
Consumption	Data pertaining to primary and secondary heating and non-heating electric costs. Also, units, such as gallons of oil or kilowatt-hours (kWh), used by a household or dwelling for a specified period of time.
Contract	A written document that contains an offer, an acceptance or consideration, to which the State is a party. Grant contracts (for Energy Programs) are a class of contracts.
Contract For Deed	A legal document or contractual term for the purchase of land or a home or other property from another party and the eventual transfer of the land deed to the new owner.
Contract Year	The period of time described for the State's fiscal year, July 1 st to June 30 th . All Department of Commerce (DOC) weatherization contracts with grantees are completed using the State of Minnesota's fiscal contract year.
Contractor	A vendor or private company from whom grantees purchase services to perform weatherization services on eligible dwellings.
Convection	The transfer of heat by air movement due to temperature and density differentials.

Convective Loop	A structural heat loss, resulting from temperature differences between the inside and outside wall surfaces causing an air movement loop within the wall cavity. This condition can be present when a stud cavity has no insulation or poorly installed insulation. Air in the cavity is heated near the interior surface of the wall, rises, circulates back toward the exterior siding, falls, re-circulates back to the warm side, and is re-heated.
Cooling Assistance	Financial assistance to eligible households for medically necessary cooling costs, usually electricity.
Cooling Load	The maximum rate of heat removal required of an air conditioner when the outdoor temperature rises and humidity becomes lighter.
Coordination	The act of organizing specific activities, plans or dates of services between two or more entities. These may include grantees, human service agencies, community non-profits, or distinct programs or offices within an agency.
Cord of Wood	A measurement of cut wood usually stacked four by four by eight feet or 128 cubic feet and delivered to a client who burns wood.
COSA	Carbon Monoxide Safety Association (COSA). A training organization that the Minnesota WAP has utilized for energy auditor's testing equipment calibrations, as well as mechanical and CO training for energy auditors and contractors doing weatherization work. http://www.cosafety.org/
Cost Effective	A measurement used to determine the financial or consumption savings achieved due to conservation or weatherization activities in a dwelling. WAP measures must be cost-effective and have a Savings-to-Investment Ratio (SIR) of one or greater. See also SIR.
Credit	A positive balance on a customer's energy or utility account.
Crisis	A critical situation caused by unforeseen circumstances that may result in the inability of a household to pay for energy and/or meet other household needs. It is also the term when the regular EAP primary heat grant does not alleviate a shut-off or refusal to deliver fuel.
CSBG	Community Services Block Grant (CSBG). A federal program that provides states and Tribes with funds to provide services to assist the needs of low income individuals including the homeless, migrants and the elderly. Grant amounts are determined by a formula based on each state's and Indian Tribe's poverty population. Grantees receiving funds are typically CAP agencies in Minnesota. http://www.acf.hhs.gov/programs/fbci/progs/fbci_csbg.html
Data Logger	A general term for hardware that records run-times of various appliances or specific electrical usage in a dwelling.

Data Privacy	The Minnesota statute and policy that assures certain data about a household is private and cannot be released to anyone without written permission.
Davis Bacon	The law that requires prevailing wages be paid for work done with certain federal contracts. Information regarding weatherization program requirements can be found at: http://apps1.eere.energy.gov/weatherization/davis_bacon_faqs.cfm
Degree Days	A numeric representation in degrees of outdoor temperature. It is the specific difference above or below 65 ⁰ F over a given period of time. The term is used in conjunction with both heating degree days and cooling degree days. Minneapolis had 7,937 heating degree days for the 2007-2008 heating season. The National Weather Service provides information on both heating and cooling degree days at: http://www.cpc.noaa.gov/products/analysis_monitoring/cdus/degree_days/
Dekatherm	One million BTUs or ten (10) therms. See BTU and Therm.
Delivery Agency	A grantee or local human service agency administering energy programs or services at the community level. Sometimes referred to as a subgrantee.
Demand	The requirement for energy as an input to provide product and/or services. Peak demand is the maximum load during a specific period of time. See also Baseload Measures.
Dense Pack Cellulose Insulation	Loose cellulose insulation is blown into closed building cavities (usually walls, but also roof and ceiling cavities) to a density of 3.5 pounds per cubic inch to air seal as well as insulate.
Depressurize	An activity which causes a lower air pressure, with respect to the reference of a higher air pressure, in a dwelling. Blower door tests typically depressurize a dwelling.
Deregulation	A term usually used for the restructuring of the electric industry. It allows electric utilities to compete with one another and with other power generators with diminished or reduced traditional federal and/or state government regulations.
Design Temperature	A high or low temperature used for designing heating and cooling systems. Design temperature helps determine the size of the unit needed to heat a home on the coldest nights.
Dew Point	The temperature at which water vapor saturates from an air mass into liquid or solid usually forming rain, snow, frost or dew. See Humidity.
DHS	Minnesota Department of Human Services (DHS). http://www.dhs.state.mn.us/
Dilution Air	Does not directly participate in the combustion process. It is introduced through the draft hood or control of a furnace before the vent exits the mechanical room. After the combustion process, dilution air is used to aid in venting flue gases by increasing volume, as well as minimizing flue gas condensation. See Excess Air, Primary Air and Secondary Air.

Direct Vent	A general HVAC term for a combustion appliance that draws combustion air from outdoors and has a sealed exhaust system. See also Power Vented and Sealed Combustion Heater.
Disabled	An eHEAT applicant who is physically or emotionally impaired or handicapped. DOE uses the term 'disabled' for program client priority and eligibility purposes.
Distribution System	An HVAC term describing the part of a central heating system used to deliver heated air, water or steam to a living space and return the cooled air, water or steam to the appliance for re-heating.
DOC	Minnesota Department of Commerce (DOC). The State agency that houses various energy and regulatory functions as well as the Office of Energy Security, and both EAP and Weatherization. The DOC link to extensive on-line Energy Programs and providers information is at: http://www.energy.mn.gov
Documentation	Information or data that substantiates eHEAT eligibility or a claim, such as proof of wages or income earned, fuel costs, child custody, or the need for heating plant/furnace repairs or replacements.
DOE	The U.S. Department of Energy (DOE). The federal agency that distributes funds to states for the low-income weatherization and other energy conservation programs. http://www.energy.gov/ See also WAP.
DOLI	Minnesota Department of Labor and Industry (DOLI). The State agency for information on construction codes, licensing, workers' compensation and the source for the Minnesota Department of Health Center for Occupational Health and Safety. Its rules and requirements affect contractors who do weatherization work for WAP grantees.
Domestic Hot Water (DHW)	Refers to a separate system to heat potable (drinking) water and supply it to a dwelling. It is commonly referred to as the hot water heater.
Dormer	A general description for the structural element of a building that protrudes from the plane of a sloping roof surface. Dormers are used to create usable space in the roof of a building by adding headroom and windows. A dormer window is a window set into a dormer.
Draft Diverter	A device located in gas appliances used to moderate or redirect drafts away from the appliance.
Draft Inducer	Creates negative pressure in the heat exchanger for the purpose of drawing in combustion air and removing the products of combustion to the venting system. It produces a slight pressure in the venting system that is overcome by thermal draft. It produces a more consistent and predictable flow rate through the heat exchanger.

- DSM** Demand Side Management (DSM). The general description for utility activities that influence customers' use of electricity or gas. Typically to produce desired changes in the utility's load. DSM studies have resulted in a variety of utility-sponsored programs to change customers' usage patterns, especially during peak load periods. While mainly an electric utility applied concept, there are applications to gas utilities as well. The ultimate goal for most utilities is to avoid the need to invest in new power plants or distribution due to excessive demands on current capacity.
- Dual System Furnace** A general HVAC or heating term used to describe a furnace that uses more than one fuel source to provide heat in a dwelling unit.
- Duct Blaster** A blower-door-like device used for testing or measuring duct leakiness and air flow in forced air furnaces. It can also be used in conjunction with a blower door to assess air leaks and conservation measures on a dwelling. See Blower Door.
- Duct Blower** A device used for testing duct leakiness and air flow. Information on duct or duct-blower testing and equipment can be found at the Energy Conservatory web site: <http://www.energyconservatory.com/products/products2.htm>. See Duct Blaster.
- Dwelling Unit** A residential housing structure, including a mobile home and a modular home when permanently connected to the required utilities (including plumbing, heating and electrical systems contained therein) and designed to be used as a permanent residence. It does not include a camper, recreational vehicle, boat, railroad car, bus or other structure designed and constructed as temporary living quarters. The term is important for eligibility regarding Minnesota Energy Programs.
- E85** A fuel containing a mixture of 85 percent ethanol and 15 percent gasoline.
- EACA** The Energy Assistance Coordinators Association. The state-wide member organization for EAP coordinators in Minnesota.
- EAP** Energy Assistance Program (EAP). A component of Minnesota Energy Programs. See also LIHEAP. EAP and other Minnesota Energy Programs, resources and links are located at: <http://www.energy.mn.gov>
- EAP/WX** Minnesota's abbreviation and description for the current five percent (5%) transfer of the federal LIHEAP funds to the conservation components of WAP, a supplement allowed by the states for weatherization activities under federal rules.
- EA-QUIP** Energy Audit using the Queens Information Package. An energy auditing software used for multi-family buildings. For energy audit purposes DOE considers multi-family buildings to contain five dwelling units or more. EA-QUIP was adapted from the Computerized, Instrumented, Residential Audit (CIRA) developed at the Lawrence Berkeley Laboratory. Information is available at: <http://www.aeanyc.org/site/c.dhJJTOzFoH/b.3075491/> and at the DOE site: http://apps1.eere.energy.gov/buildings/tools_directory/software.cfm/ID=244/page_name=alpha_list

Economic Unit	A group of people living together who are provided heat and energy in a common or shared living situation. An eligibility term used with eHEAT and Minnesota Energy Programs.
Education Level	The highest completed level of formal education achieved by each household member and indicated on the Energy Programs application.
Efficiency	The ratio of output divided by input. See also Energy Factor.
Efficiency Modifications	Changes made, usually to heating or mechanical systems, to increase efficiency ratings of the distribution systems for a dwelling unit.
EFT	Electronic Funds Transfer (EFT). A computer-based system used to perform financial transactions electronically. It sometimes is referred to as warrants by Minnesota Energy Programs.
eHEAT	Electronic Home Energy Assistance Technology (eHEAT). A database system that electronically processes and stores household eligibility, files, reports and agency data for EAP and weatherization.
Elderly	A person aged 60 years old or more for DOE or WAP eligibility. Households having only one person in this demographic group are considered an elderly household for WAP and DOE reporting purposes.
Electric Baseboard	An individual space heater with electric resistance coils mounted behind shallow panels along baseboards. Electric baseboards rely on passive convection to distribute heated air to the space.
Electric Co-ops	Member-owned companies that purchase and distribute electricity, usually in rural areas of the state. They are not regulated by the Minnesota PUC. A listing of the state's rural electric co-operatives can be found on the MREA web site at: http://www.mrea.org/ourmembers/electric_coops.php
Eligibility Determination	The step by step review of income documentation, household information, and energy costs to determine if a household is program eligible.
Eligibility Worksheet	A local agency income worksheet used to calculate household income for a given eligibility period and used by the Energy Programs to determine a grant amount.
Emergency	A life-threatening and dangerous situation where a household is without heat or a means to attain it. In eHEAT it triggers certain response times and services.
Emergency Benefit (EB)	An EAP term describing a crisis payment to an eligible household. An Emergency Benefit Adjustment (EBA) provides an additional incentive to establish and maintain regular payments for energy by a household.

Energy Audit	The process where a trained staff person assesses and documents the energy conservation needs of a dwelling, including furnace safety and efficiency testing and all cost-effective weatherization measures.
Energy Burden	A household's total energy costs, usually as a percentage of income, and in relationship to available resources and expenditures. National studies indicate that low income families have an energy burden of 25% or more of their net income or resources.
Energy CENTS Coalition	A Minnesota non-profit organization working to promote affordable utility services for low and fixed income people. The organization advocates to ensure the basic necessity of energy to all citizens, and to encourage the participation of low and fixed income citizens in energy issues and energy related decision-making. http://www.energycents.org/
Energy Education	A general term used by the WAP to inform customers on ways they can reduce energy consumption through altering behavioral patterns or use of technology. The most effective education includes multiple interactions with household residents and use of a negotiated and/or written action plan.
Energy Efficiency	Refers to products or systems designed to use less energy for the same or higher performance than regular products or systems. Saving energy through efficiency also saves money on utility bills and protects the environment.
Energy Efficiency Ratio	A measurement of energy efficiency for air conditioners and heat pumps. See also Seasonal Energy Efficiency Rating (SEER).
Energy Factor	An efficiency rating used with water heaters. This number (with a decimal point) is listed on a tag beside the unit's yellow ENERGYGUIDE label. The higher the "Energy Factor" number, the more efficient the unit. Gas water heaters have energy factors between 0.5 to 0.7. Electric models range from 0.75 to 0.95. Energy-saving water heaters cost about 18 percent less to run than older models. The rating also factors "standby losses," the percentage of heat loss per hour from the stored water compared to the heat content of the water. Water heater information and links at: http://apps1.eere.energy.gov/consumer/your_home/water_heating/index.cfm/mytopic=13000
Energy Index	A Weatherization Assistant software calculation that factors the square footage of heated living space and is used for prioritizing households. See ART and Heating Energy Index Calculator.

Energy Recovery Ventilator (ERV) Energy recovery ventilator (ERV). A controlled method of ventilating a home while minimizing energy loss. Reduces the costs of heating ventilated air in the winter by transferring heat from the warm inside air being exhausted to the fresh (but cold) supply air. In the summer, the inside air cools the warmer supply air to reduce ventilation cooling costs. ERV systems transfer both heat and water vapor, while a Heat Recovery Ventilator (HRV) transfers only heat. ERV systems require more maintenance and need to be cleaned regularly. The EERE site provides information and links on various ventilator systems at: http://apps1.eere.energy.gov/consumer/your_home/insulation_airsealing/index.cfm?mytopic=11900 See also Heat Recovery Ventilator.

ENERGY STAR An EPA/DOE program providing incentives for manufacturers to make energy-efficient products and encouraging consumers to buy these products. Information and links on the program are at: <http://www.energystar.gov/>

Energy Tax Credits Federal income tax credits provided for specific appliances, energy efficient home improvements and energy conservation measures. Information and links at: http://www.energystar.gov/index.cfm?c=products.pr_tax_credits

Envelope A WAP term for the building shell. It also describes the exterior walls, floor and roof assembly of a building.

EPA The U.S. Environmental Protection Agency (EPA). A federal agency dealing with air quality, emissions and regulation in transportation and industry. <http://www.epa.gov/>

Equivalent Leakage Area (ELA) A calculation, in square inches, of the total area of all holes and cracks in a dwelling structure. The leakage area is then accumulated to represent one total leakage point for measurement purposes of air leaks in a dwelling.

ERR Energy Related Repair (ERR). One of the crisis components of EAP. It is solely for furnace repairs and replacements for eligible households. It is sometimes used in conjunction with weatherization (WAP) conservation and mechanical work on an eligible home faced with a no-heat emergency. Only homeowners can receive ERR.

Evaporated Cooler A device for cooling homes in warm dry climates that cools incoming air to a dwelling by humidifying it. Evaporative coolers have a low initial cost, use much less electricity than conventional air conditioners, and do not use refrigerants, such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs).

Event An eHEAT term describing the four specific types of WAP activities and their electronic files; Standalone, NEAT Audit, MHEA Audit (for mobile homes) and Callback.

Excess Air Is the amount of air supplied to the combustion process over and above what is required for complete combustion. It is introduced as a designed safety factor to ensure fuel molecules are completely surrounded by sufficient oxygen. A combustion analyzer will display the percentage of oxygen or excess air.

Exfiltration	The movement of air out of a building or dwelling unit.
Exhaust Fan	Small fans located in the wall or ceiling that exhaust air, odors, and moisture from a bathroom, kitchen, or basement in a dwelling to the outside.
Fan-Assisted	A description for forced-air heating systems that have the delivery of their combustion air “assisted” by use of a fan. This ensures a proper mix of air for combustion and is typically found in “mid-range” efficiency appliances. Their flue design operates at a negative pressure and is atmospherically dependant for removing all combustion gases. See also Power Vented.
Fenestration	Window and door openings in a building shell. There is a National Fenestration Rating Council which provides performance ratings on windows, doors and skylights. It is an educational organization that provides the public with information to make more informed choices. http://www.nfrc.org/
FFY	Federal fiscal year, as opposed to the State of Minnesota’s fiscal year. Contracts for Energy Programs from DOC use the Minnesota fiscal year, which runs from July 1 st to June 30 th .
Fiberglass	A fibrous material made by spinning molten glass. Blown fiberglass insulation is typically used in mobile homes being weatherized.
Fill Tube	A plastic or metal tube used for its stiffness to blow insulation inside a building cavity.
Final Inspection	The final check and verification of completed weatherization work done on a dwelling, based on the energy auditor’s and WAP contractor’s on-site assessments and completed work. This is referred to as being “passed on” within the WA software. It is one of the status indications for each separate work order contained in WA.
Fire Stop	A framing member designed to stop the spread of fire within a wall cavity.
First Call Minnesota	A statewide information and referral system. It provides comprehensive information about human services. First Call Minnesota™ and Greater Twin Cities United Way First Call for Help®, now Minnesota 2-1-1, is a centralized resource list available by telephone to individuals, families and agencies.
Fix-Up Fund	An MHFA loan program made available through participating local banks, housing agencies and non-profit organizations for moderate income homeowners. Can be used for energy efficiency improvements. In comparison with traditional bank loans, the fixed interest rate and the longer repayment terms of a Fix-Up Fund provides homeowners with monthly payments that fit their budget. Lenders for this program are listed at the MHFA site: www.mnhousing.gov/consumers/lender
Flashing	Waterproof material used to prevent leakage around windows, at intersections between the roof surface at walls, or at penetrations.

Flesch Test	A test administered on Energy Program written documents to ensure they are comprehensible by a person with a sixth grade reading level. This is a requirement for all materials used for Minnesota Energy Program clients.
Flue	A channel within an appliance or chimney for combustion gases to flow away from a dwelling or CAZ.
Foam board	Plastic foam insulation manufactured most commonly in 4' x 8' sheets, and in thicknesses of ¼" to 3". It is also referred to as rigid board and can be foil-backed as well as fire-rated.
Foot Candle	A specific measure of light striking a surface. The name "foot candle" conveys the luminance cast on a surface by a one-candela source, one foot away. The dimensional formula, or naming, is now lumens per square foot. See Lumen.
Footer	The part of a foundation system which transfers the weight of the building to the ground.
Foster Care	Care provided to minor children or to disabled adults and paid for with county and/or other matching funds.
Fraud	In Energy Programs, it refers to unlawfully gaining assistance by willfully providing false information on an application for assistance.
Frost Line	The maximum depth of the soil where water will freeze during the coldest weather.
FSR	Financial Status Report (FSR). A monthly eHEAT fiscal report electronically submitted to the Department of Commerce showing various line-item expenditures for each funding source by a grantee.
Fuel Change	Weatherization funds can only be used to switch fuels when it is medically necessary and/or other cost-effective reasons are documented. An example may be when an existing oil furnace has to be changed for safety purposes and the location of the dwelling is supplied with natural gas, which may be a less expensive heating source than oil or propane.
Fuel Cost Library	A WA software component indicating yearly unit costs for fuel types and their heat content in MBTU.
Fuel Cost Per Unit	A per-unit cost of heating fuel. Generally stated in terms such as kilowatt hours, gallons, cubic feet, therms etc.
Fuel Cost, Total	The total cost of fuel or energy used during a defined consumption period. Represents heating plus non-heating costs for a dwelling.
Fuel Oil	A liquid petroleum product less volatile than gasoline, used as an energy source. Fuel oil includes distillate fuel oil (No. 1, No. 2, and No. 4), and residual fuel oil (No. 5 and No. 6).

Fuel Type	The fuel used to heat a dwelling or home such as oil, electricity, propane, natural gas, wood or bio-mass.
Fund ID#	An identification number for use in the Department of Commerce accounting system.
Furnace Test	A procedure for measuring the safety or fuel efficiency ratings of furnaces or boilers. See Combustion Test and also SSE.
GA	General Assistance (GA). A state welfare program which serves as Minnesota's primary safety net for single adults and childless couples. The maximum benefit in 2009 was \$203 per month for a single adult and \$260 a month for a married couple. http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=id_002558
General Repair	Repairs which protect the effectiveness of weatherization materials or activities done initially to allow for the correctly installed conservation or weatherization materials. General repair costs must be included in the overall SIR calculation for the total expenditure of a WAP job. Mechanical repair work on a heating system is not considered a general repair.
GFCI	Ground fault circuit interrupter (GFCI). It is an arc fault circuit interrupter. Electrical outlets near water sources such as sinks, laundry appliances, and garage and outdoor outlets should have a ground fault circuit interrupter. These outlets have the "test" and "reset" buttons. A GFCI works by monitoring the flow of electricity through the outlet's circuit. If there is any variation in the current, the GFCI will automatically cut off the flow of electricity, preventing injury.
Glazing	Glass installation. Pertaining to glass assemblies or windows. See also Fenestration.
Grantee	A local Energy Program agency, county social service office, Community Action Agency, housing and rehabilitation agency, Tribal government or private non-profit receiving a grant (contract) from the State of Minnesota. Subgrantee is also a term used.
Grantor	Agency that provides a grant (contract) to another entity. The Department of Commerce (DOC) is a grantor for WAP funding.
Gravity Furnace	A central heating system that uses natural gravity to distribute heat throughout the dwelling unit rather than using forced circulation, pumps or circulation blowers.
Green Building	Green, or sustainable building, is the practice of creating and using resource-efficient models of construction, renovation, operation, maintenance and demolition. Information and links at: http://www.epa.gov/greenbuilding/

Green Pricing	In the case of renewable electricity, green pricing represents a market solution to the various problems associated with regulatory valuation of renewables. Green pricing programs allow electricity customers to express their willingness to pay for renewable energy development through direct payments on their monthly utility bills.
Group Home	A living situation housing individuals in a communal setting. Energy is provided in common. Group homes generally are not eligible for weatherization.
Gusset	A metal or wood plate added to the surface of a joint to strengthen the connection.
Gypsum Board	A common interior sheeting material for walls and ceilings made of gypsum rock powder packaged between two sheets of heavy building paper. Also called sheetrock.
Halogen Lamp	A type of incandescent lamp that lasts longer and is more efficient than the common incandescent lamp. The lamp uses a halogen gas, usually iodine or bromine that causes the evaporating tungsten to be redeposited on the filament, thus prolonging its life.
Head of Household	The first person listed on the eHEAT application, a demographics term or sometimes the contact person for the household served by one or more of the State's Energy Programs.
Health and Safety	A general weatherization term referring to identifying or completing certain non-insulation activities, such as replacing ventilation fans or installing smoke detectors. Average cost expenditures for these activities cannot exceed certain dollar amounts set by federal or state rules.
Heat Anticipator	A very small electric sensor in a thermostat that causes the furnace to shut off before the room temperature reaches a specific setting so the dwelling does not overheat from heat remaining in the furnace and ducts after the burner shuts off. The anticipator shuts the heater off prior to reaching the set temperature point of the thermostat.
Heat Exchanger	A device built for efficient heat transfer from one medium to another. In solar applications it is used to transfer heat from a fluid (liquid or gas) to another fluid where the two fluids are physically separated.
Heat Gain	The amount of heat introduced to a space from all heat producing sources such as building occupants, lights, appliances and the environment, including solar energy. The term is also used to describe a Solar Heat Gain Coefficient (or SHGC) rating. See Solar Heat Gain. http://www.nfrc.org/documents/SolarHeatGain.pdf
Heat Loss	The amount of heat that escapes through conduction and air flow in the building shell of a dwelling during a measured period of time.

Heat of Condensation	The amount of heat liberated by a unit mass of gas at its boiling point as it condenses into a liquid. It is an important concept in understanding how a refrigerator works. When a gas condenses to form a liquid, it gives off heat – the heat of condensation. In this way the refrigerant gets rid of the heat it absorbed from the inside of the refrigerator. Displacing this heat the refrigerant cycles through the coil again and removes more heat from the inside of the refrigerator.
Heat Pump Systems	The most common type of heat pump is the air-source heat pump, which transfers heat between a dwelling and the outside air. If heating with electricity, a heat pump can trim the amount of electricity used for heating by as much as 30%–40%. DOE information and links on heat pumps and geothermal pumps can be found at: http://www.energysavers.gov/your_home/space_heating_cooling/index.cfm/mytopic=12610
Heat Recovery Ventilator	A residential heat recovery ventilator (HRV) uses separate blowers to move incoming fresh air and outgoing stale air in a dwelling. The heat-exchanger core of a typical HRV has separate passages with incoming and outgoing airstreams flowing in alternate ducts. Heat is transferred from warm stale air to cool air coming from the outside and into the conditioned space. The EERE site from DOE has additional information and links on ventilators at: http://apps1.eere.energy.gov/consumer/your_home/insulation_airsealing/index.cfm/mytopic=11900 See also Energy Recovery Ventilator.
Heat Rise	The number of degrees of temperature increase that air (or water) is heated as it is blown or passed over the heat exchanger of a furnace or boiler.
Heat Share	The national and local heating assistance program administered by the Salvation Army and funded by local utility customer donations. Information on the Minnesota program is located at: http://www.heatshare-mn.org/
Heat Transfer Coefficient	See U-value. U-values indicate how well a material allows heat to pass through it.
Heating Degree-Days (HDD)	A numerical figure of outdoor temperature differences, in degrees, below 65 ⁰ F over a 24 hour period. Colder regions of the state have a higher number of seasonal heating degree-days compared to warmer areas of the state. See Degree Days.
Heating Energy Index Calculator	The ‘Heating Energy Index Calculation’ is completed in NEAT and MHEA. A dwelling’s total space heating for the season is converted into BTUs, divided by the amount by Heating Degree Days (HDD), and divided by the square footage of actual living space. This is a more accurate factor in prioritizing homes for conservation services, especially with CIP funds. A Heating Energy Index calculation of seven (7) or higher is often used as a measure of high consumption for weatherization or CIP eligibility purposes.
Heating Load	The maximum rate of heat supply needed by a building or dwelling during the very coldest weather. Also defined as the rate of heat flow required to maintain a specific indoor temperature; usually measured in BTUs per hour.

Heating Season	The months dominated by heating requirements. In Minnesota this time period is typically October through May. Energy Program grants are calculated based on a household's heat costs for a full heating season.
Heating Source	The equipment constituting a dwelling's primary heating plant, such as a furnace, space heater, boiler, fireplace, etc.
HEPA Vacuum	A high-efficiency particulate air filter designed with air suction and used often with lead renovation work to clean up and carefully capture dust and debris on surfaces. Vacuum cleaner filters marketed as "HEPA-like" will typically use a filter of a similar construction to HEPA, but without the filtering efficiency.
HERS	Home Energy Rating Systems (HERS). A nationally recognized energy rating program that gives builders, mortgage lenders, secondary lending markets, homeowners, sellers and buyers a precise evaluation of energy losing deficiencies in homes. Builders can use this system to gauge the energy quality in their home and also to have an ENERGY STAR rating on their home to compare to other similarly built homes. The ENERGY STAR link to general HERS information is located at: http://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_HERS
HH	Household. An acronym used with eHEAT and WAP applicants for recording and tracking individual electronic files; for example HH234567.
HHS	Health and Human Services. The federal agency which provides LIHEAP or the Energy Assistance Program funding. http://www.hhs.gov/
High Consumption	A specific energy consumption measurement or comparison to an average cost figure for a dwelling that uses higher than average fuel, electric, or heating costs. The eHEAT software lists high consumption households for each service provider. See also Heating Energy Index.
High Efficiency	A general term for a heating system that reaches at least 90% of the available heat energy in a fuel source. Weatherization rules require new furnaces that replace unsafe units under Minnesota program rules must be high efficient models.
High Limit	A bimetal thermostat that turns the heating element of a furnace off if it senses a dangerously high temperature.
Home ENERGY STAR	To earn the ENERGY STAR, a home must meet strict guidelines for energy efficiency set by the U.S. Environmental Protection Agency. These homes must be at least 15% more energy efficient than homes built to the 2004 International Residential Code (IRC), and include additional energy-saving features that typically make them 20–30% more efficient than standard homes. Information and links at: http://www.energystar.gov/index.cfm?c=new_homes.hm_index See also http://www.waptac.org/sp.asp?mc=techaids_estar
House Pressure	The difference in air pressure between the indoor air space and outside.

Household File	A paper or the eHEAT electronic file of all pertinent household information necessary to verify household eligibility and/or grant payments or work activities in a household.
Household Size	The number of people residing in a dwelling on the date a household member signs an eHEAT application for assistance.
Household Unit	All persons living together in a dwelling unit, sometimes simply referred to as the household by Minnesota Energy Programs.
HRA	Housing Redevelopment Authority. Usually a local agency responsible for federal and state housing programs and grants.
HUD	The U.S. Department of Housing and Urban Development (HUD), the federal agency that funds numerous housing programs in partnership with states and local communities. http://www.hud.gov/
Humidistat	An automatic control that switches a fan, humidifier or dehumidifier on and off to control relative humidity within an enclosed space or dwelling.
Humidity	Water vapor in the air. The term humidity is sometimes taken to mean relative humidity. Associated with relative humidity is dew point. If the dew point is below freezing, it is referred to as the frost point. See Dew Point.
HVAC	Heating, Ventilation and Air Conditioning. A general industry term often describing the actual work and the contractor who does heating, ventilation and cooling work or services.
Hydronic	A heating system that uses hot water or steam as the primary (typically) heat-transfer fluid or medium for a dwelling.
IAQ	Indoor Air Quality. A general term for air quality concerns. When there is little infiltration, natural ventilation or mechanical ventilation in a weatherized dwelling, the air exchange rate becomes low and pollutant levels may increase. http://www.epa.gov/iaq/ia-intro.html
IFGC	International Fuel Gas Code.
IMC	International Mechanical Code.
Incidental Repair	A defunct DOE term describing repairs that protect or ensure the effectiveness of conservation materials. The term currently used to describe these measures is General Repair and still applies when it is necessary to either install or protect weatherization materials. See General Repair.

Independent Contractor Exemption	A state law requiring individuals (not corporations, LLCs or partnerships) who work as independent contractors in the building and construction industry to obtain an ‘Independent Contractor Exemption Certificate’ from the MN Department of Labor and Industry. Individuals doing building construction work (including weatherization) without this certificate will be employees of the contractor for whom they are working.
Infiltration	The inflow of outdoor air into the indoors, which is accompanied by an equal outflow of air from indoors to the outdoors.
Informed Consent	A term used for the specific document signed by a client indicating to DOC and any contractors permission to release information collected or created by the Energy Programs (EAP, WAP and CIP).
Infrared Thermography	A general term for the science of infrared imaging to detect radiant energy or heat loss characteristics of a building. An infrared camera or scanner electronically senses heat radiated by objects and converts that thermal energy into images. The camera produces varying shades or color images of the building structure or walls or other surfaces. An infrared camera is a valuable tool in detecting insulation voids or air bypasses.
In-kind Contributions	A general term representing the value of non-cash contributions provided by grantee and non-Federal parties. In-kind contributions may be in the form of charges for real property and non-expendable personal property and the value of goods and services directly benefiting and identifiable to a project or program.
Inspection, Final	An on-site physical review or assessment of a dwelling or furnace by a trained or certified person or technician. This is designated by the term “passed on,” and a status within the WA software.
Installer	A contractor or vendor who provides mechanical or conservation materials or services to an eligible household.
Insulation	Material that reduces conductive heat transfer in a dwelling. Most insulation used in the weatherization program is “dense-pack” cellulose blown into attic spaces or wall cavities and comes from fire-treated, ground-up newspaper. Properly installed dense pack insulation slows air infiltration and conduction within building cavities. An excellent on-line resource covering insulation is the Department of Energy’s Insulation Fact Sheet, produced by the Oak Ridge National Laboratory. See http://www.ornl.gov/roofs%2bwalls/insulation/ins_01.html .
Intermittent Ignition Device	A general description for a device that lights the pilot on a gas appliance when the control system calls for heat, saving the energy wasted by a standing pilot.
Jalousie Window	A type of window usually associated with manufactured or mobile homes with two or more panes of glass that pivot on a horizontal axis. They are usually controlled by a crank mechanism and are not energy efficient since it is impossible to achieve a good seal between the panes. Sometimes referred to as crank out windows.

Job Book A general term for a document used by an energy auditor to record the energy conservation details of a dwelling, including the efficiency and safety measurements of the heating plant. This data is kept electronically in the Weatherization Assistant (WA) software, using either NEAT or MHEA. See WA.

Kelvin A term for the measurement of light color. It is also used to give consumers color ranges for various light bulbs since a selection of color temperatures can be chosen. For example, a 2700K CFL bulb provides a ‘warm white’ color look, just like an incandescent light bulb’s color. A 5000K will produce a ‘cool white’ color. In general, lower the Kelvin temp, the warmer (more yellow) the light; the higher the Kelvin temp, the cooler (bluer) the light. Kelvin measurements are one consideration for household lighting color and energy efficiency.

Kilowatt (kW) A kilowatt (kW) is equal to one thousand watts. A kilowatt is approximately equivalent to 1.34 horsepower. An electric heater with one heating element might use 1 kilowatt. An ENERGY STAR refrigerator might use 50 kilowatts or less per month. See also BTU, Kilowatt and Megawatt.

Knee Wall In construction, a short vertical wall often on a second floor and usually under three feet in height. The term is derived from the association with the vertical location of the human knee. Also commonly known as a half-wall or partial-wall and often used as “attic” storage when there is no attic. This wall or the roof line of the dwelling can be chosen as the thermal boundary for weatherization or insulation purposes.

Knob and Tube A kind of wiring used in houses in the early 20th century, now known to be unsafe. Homes with live knob and tube cannot be weatherized unless certain precautions are taken to isolate this wiring from the insulation materials due to fire hazards.

kWh Kilowatt hour. A measurement of electrical use. If a heater is rated at 1000 watts (1 kilowatt) and that heater is on for one hour, then one kilowatt hour is used. Using a 60 watt light bulb for one thousand hours consumes 60 kilowatt hours of electricity. If a 100 watt light bulb is on for one hour per day for 30 days that is $100/1000$ (kilowatt) X 30 (hours) = 3 kilowatt hours.

Landlord A person or corporation who rents a dwelling to another for cash rent. Varying agreements or contracts are made between landlords and renters.

**Landlord
Tennant
Agreement** A term to describe the document required for completing a WAP application when the applicant is a renter. The agreement is a legally binding contract, signed by the tenant, the landlord (or property owner) and the local WX agency specifying the roles and responsibilities of each party. The goal of the agreement is to ensure that the benefits of WAP accrue to the low income family.

Lead	A chemical component which if ingested causes serious health impairment and disease after periods of exposure as short as days or as long as several years. It is a major public health risk and may be present in hazardous concentrations in food, water, air and the ground. Sources also include paint and urban dust and soils. Lead poisoning is the leading environmentally induced illness in young children. At greatest risk are children under the age of six. WAP grantees provide information on lead safety to all applicants. See Lead Safe Work Conditions and also LSW.
Lead Safe Weatherization Conditions	Lead Safe Weatherization (LSW) conditions are ones that meet the OSHA, DOE and WAP requirements for adequate protection from lead exposure for both the building occupants and the workers performing the weatherization activities. See LSW. Also the WAPTAC web site: http://www.waptac.org/si.asp?id=1233 .
Leveraging	The process of calculating or acquiring funds generated by local agencies or DOC and reported to HHS and DOE giving specific additional funding to states. It is also a term used to generate private money that is “matched” to state and federal assistance or for a grant proposal.
Life Estate	A legal description for land or a farm or a home being passed on to heirs, but still allowing the original landowner to continue to live on the property until they die. Applicants living in a dwelling under a life estate provision are considered homeowners.
Life Threatening	A condition where there is an immediate, unsafe condition directly related to the heating system that threatens life. Examples include a red tagged furnace, gas leak or combustion gases leaking out of the furnace or flue system into the dwelling.
LIHEAP	The abbreviation for the federally funded Low Income Heating Assistance Program. The program funded by LIHEAP in Minnesota is called the Minnesota Energy Assistance Program, or EAP. http://www.acf.hhs.gov/programs/ocs/liheap/
Live-In Care Attendants	Paid staff that take care of and live with a disabled or elderly person in order to provide personal care. This person is not considered part of the household when determining eligibility and their income is not counted.
Living Area	A weatherization description for the total square feet of conditioned (heated or cooled) space that is designed for occupancy. Unintentionally conditioned basements are not usually lived-in areas. However, a basement bedroom or family room would be included as living area for energy audit purposes.
Locked	A specific WA software term for all audit event files being reported as completed and finished. In order for job to be ‘counted’ for DOE purposes, it must be locked.
Low-E	Short for low emissivity, the characteristic of a metallic glass coating to resist the flow of radiant heat. Coating a glass surface with a low-emittance material can reflect significant amounts of heat, thus lowering the total heat flow through the window. Additional information can be found at the University of Minnesota’s Center for Sustainable Building Research (CSBR) and their new book on Residential Windows at: http://www.csbr.umn.edu/research/rwbook.html .

- LP** Liquid propane (LP). Known as liquefied petroleum gas (LPG) or LP-gas which can be a mixture of propane along with small amounts of propylene, butane and butylenes. The odorant ethanethiol is sometimes added so that people can easily smell the gas in case of a leak. See Propane.
- LSW** Lead Safe Weatherization (LSW), an acronym describing DOE general program guidelines, recommendations and curriculum when working in homes with high lead levels. “Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools” is now given to all WAP households if a dwelling was built before 1978. Lead resources can be found at the EPA site: www.epa.gov/lead. The WAPTAC site has extensive links to the DOE guidance on LSW and downloadable PDF files: <http://www.waptac.org/si.asp?id=1233> See also lead and OSHA
- Lumen** A unit of light output from a lamp or light fixture. A standard North American 100 watt incandescent light bulb emits 1500–1700 lumens. See also Kelvin
- M-200** Abbreviation for “Minnesota–200.” This was a procedure for doing energy audits to determine weatherization measures. This protocol and term is no longer used. It has been replaced by the Weatherization Assistant (WA) software including both NEAT and MHEA.
- Major Air Sealing** A general term for sealing bypasses and other large openings between heated and unheated spaces in a dwelling. Major air sealing activities are generally completed prior to other shell measure activities and usually result in a significant drop in the blower door reading and/or changes in pressure diagnostics readings.
- Make-Up Air** The air supplied to a space to make up for air being exhausted out of the home by exhaust fans or chimneys. It is often used by bringing outside air into a dwelling so an existing or new furnace does not de-pressurize a dwelling when combustion gases and conditioned air leave through the furnace flue. This is done so back drafting of harmful gases does not take place, especially when dwellings are tightened. See also Combustion Air.
- Manometer** Measuring device for small amounts of air pressure. Used with the blower door and with house air pressure diagnostics to determine air leaks and heat loss.
- Manual J** The ASHRAE method of calculating building heat loss. Used for sizing furnaces in dwellings. See also ASHRAE.
- Mastic** Material used to seal duct leaks. It is the consistency of drywall joint compound when applied but dries to a hard durable finish. To seal duck leaks larger than one fourth inch, mastic is applied over a fiberglass mesh tape.
- MBTU** One million BTU. See BTU.

MCAA	Minnesota Community Action Association (MCAA), often referred to as the MN Community Action Partnership (MinnCAP) , is made up of member organizations from Community Action Agencies, local nonprofits that fight poverty and administer numerous anti-poverty programs including Heat Start, EAP and WAP. http://www.minncap.org/
MCF	One thousand cubic feet. A measurement of natural gas. It is the standard unit of gas measurement for billing, delivering or for measuring purposes.
Mechanical Audit	The specific part of a WAP energy audit process that documents the furnace and water heater for safety factors, CO levels, and specific efficiency ratings.
Mechanical Health and Safety	A program term and line-item expenditure and reporting amount within fund sources (for example EAP/WX), for doing mechanical and/or safety work which is part of an audit event on an eligible home.
Mechanical Systems	A dwelling unit's home air heating and/or water heating designs and their distribution systems. The primary components of the mechanical system include those appliances (and their fuel supply, control and distribution systems) that heat the dwelling and provide hot water for domestic use. The Minnesota Mechanical Systems Field Guide gives detailed information and best practices for improving the efficiency and safety of heating and cooling systems.
Megawatt Hour	One megawatt-hour (MWh) is equal to 1,000 kilowatt-hours or 1 million watt-hours. Megawatt measures the capacity of an electric generator and "megawatt-hour" measures the actual amount of electricity it produces over a certain period of time.
MERV	Minimum Efficiency Reporting Value. A numerical measurement of a furnace air filter's efficiency, ranging from 1 to 16. The higher the number, the more efficient the air filter is at removing particles. A fiberglass panel filter may have a MERV of 4 or 5. Higher MERV filters are capable of removing extremely small contaminant particles. A higher MERV also creates more resistance to airflow because the filter media becomes denser as efficiency increases. A user should select the highest MERV filter that their furnace is capable of forcing air through based on the limit of the unit's fan power. http://www.furnacefiltercare.com/merv-ratings.php
Meter Readings	A measurement of consumption units used by water, gas or electricity companies and recorded manually or by using remote sensors for billing and WA software recording purposes.
MFIP	Minnesota Family Investment Program (MFIP). A pilot program in urban and rural counties from 1994 to 1998 and an alternative to the federal welfare program Aid to Families with Dependent Children (AFDC). Minnesota's current MFIP program, adopted in 1998 as a successor to the MFIP pilot program, has stricter work requirements and less generous financial incentives.

MGDPA	Minnesota Government Data Practices Act (MGDPA). The law and rules which regulate how governmental agencies can collect and use client information.
MHEA	Mobile Home Energy Audit (MHEA). DOE weatherization tool. Minnesota refined this software for specific upgrades and application with the Weatherization Assistant (WA). This is required on all mobile or manufactured homes to determine cost-effective audit measures and record energy auditing and other household data.
MHFA	Minnesota Housing and Finance Agency (MHFA). State agency which handles numerous housing/energy loan and grant programs for residents. Additional information on MHFA programs and loans can be found at: http://www.mnhousing.gov/
Minimum Ventilation Levels	A value or amount of air at a CFM50 blower door reading necessary for natural or required ventilation in a dwelling depending on the current standards set by ASHRAE 62.2.
Minnesota Energy Code	Refers to a set of statutes or rules within the State affecting a variety of energy and housing and building requirements, both residential and commercial.
Minnesota Housing Finance Agency (MHFA)	State agency assigned to deal with affordability issues for housing. MHFA acts as the State's affordable housing bank. It also offers energy conservation loans from their Fix-Up Fund, a program that offers low-interest loans through Minnesota Housing's network of lending partners. Under the loan program, homeowners are encouraged to get an energy audit from their utility company to determine the most cost-effective energy-efficient improvements. Homeowners then apply for a loan. Lenders are listed at www.mnhousing.gov/consumers/lender .
Minnesota Management and Budget (MMB)	Minnesota Management and Budget. State agency created in June 2008. It was formed from the merger of the previous Minnesota Departments of Finance and the Department of Employee Relations. All Energy Program centralized primary heat payments are made by MMB. Information and links at: http://www.mmb.state.mn.us/home
Minnesota Municipal Utilities Association (MMUA)	The Minnesota Municipal Utilities Association (MMUA). Represents the interests of Minnesota's municipal electric, gas and water utilities. There are currently 126 municipal electric and 31 municipal gas utilities in Minnesota, most of which are not regulated by the rules of the Minnesota PUC. Information on this State association can be found at: http://www.mmua.org/
Minnesota Pollution Control Agency (MPCA)	The State agency designated to deal with air quality and pollution issues. It has taken a major leadership role in green issues, climate change, waste, feedlots, and water quality standards as well as ethanol and larger energy issues for Minnesota citizens. Its home page site is located at: http://www.pca.state.mn.us/ The Minnesota Office of Environmental Assistance was recently combined within the PCA; its link is at: http://www.pca.state.mn.us/oea/index.html

Minnesota Relay Service	Enables communication between a hearing and or speech impaired person's TDD/TTY and the local Service Provider (SP). See TDD/TTY.
Mobile Home	A dwelling which can be physically moved on a trailer or wheel system. A trailer is another term for a mobile home. Manufactured home is also a general industry term to describe a mobile home. A modular home is similar to a mobile home.
Monitoring	The process of both self-assessment and DOC review of contracts for compliance with Energy Program plans, standards and work done by local grantees. DOC requires five percent on-site visits of all weatherization contract work as part of its monitoring process.
MSA	Minnesota Supplemental Aid (MSA). A state funded program that provides a monthly cash supplement to people who are aged, blind or disabled and who receive federal Supplemental Security Income (SSI) benefits. Some recipients who do not receive SSI because their other income is too high may still be eligible for MSA if they meet MSA eligibility criteria.
MSDS	Material Safety Data Sheet (MSDS). A document or fact page containing information or details describing the hazards of a specific material or product. The web site can assist a person in finding Material Data Safety Sheets that are posted on the Internet. http://www.ilpi.com/msds/
Multi-Unit Dwellings	A building or architectural term, sometimes referred to as multi-family. For DOE or WAP eligibility purposes, it refers to a structure which contains five or more dwelling units.
Municipal Utilities	Utility companies which are owned and operated by a municipality in order to provide utility services to residents of a community. They are not regulated by the Minnesota PUC and often provide additional services besides heat and/or electricity, such as garbage pick-up, cable TV, telephone, sewer and water. Information on the Minnesota Municipal Utilities Association (MMUA) can be found on their web site: http://www.mmua.org/ .
MURL	Minnesota Urban and Rural Homesteading Loan Program (MURL). A state funded housing program administered by some local CAP agencies. The MURL Program is designed to arrest or prevent the spread of blight through the preservation of existing or dilapidated single family housing. These homes are sold to at-risk homebuyers via an interest-free contract for deed. http://www.mnhousing.gov/resources/apply/murl/index.aspx
MWAG	Minnesota Weatherization Advisory Group (MWAG). A member organization of WAP coordinators who meet on a bi-monthly basis.

- NASCSP** National Association for State Community Services Programs (NASCSP) is a national association charged with advocacy, training and leadership services to states in their efforts to reduce poverty. NASCSP also has a direct partnership with WAP and supports WAPTAC and advocates extensively for weatherization at the national level. <http://www.nascsp.org/>
- NASEO** National Association of State Energy Officials (NASEO). A non-profit organization whose membership includes the governor-designated energy officials from each state. It was formed in 1986 and was created to improve the effectiveness and quality of state energy programs and policies, as well as provide important energy policy input and analysis. <http://www.naseo.org/>
- Natural Gas** Before natural gas can be used as a fuel, it must undergo extensive processing to remove almost all materials other than methane. It is the primary heating source for almost 70% of all Minnesota homes.
- NEAT** National Energy Audit Tool. A DOE weatherization software tool. Minnesota refined this software for specific upgrades and applications. It is used by WAP as the audit tool for all site-built homes. General information from DOE on the tool can be found at: http://apps1.eere.energy.gov/weatherization/wxtech_neat.cfm
- NEC** National Electrical Code. A standard for the safe installation of electrical wiring and equipment. It is also part of the National Fire Codes series published by the National Fire Protection Association (NFPA). “National Electrical Code” and “NEC” are registered trademarks of the NFPA. Information can be found at: <http://www.nfpa.org/index.asp?cookie%5Ftest=1>
- Net Stack Temperature** Is the gross stack temperature minus the combustion air inlet temperature. Also termed as gross minus ambient temperature. In sealed combustion systems it is necessary to measure the actual temperature of the air used in the combustion process. See Stack Temperature.
- NFA** Notice of Funds Available. A fiscal reporting tool given to service providers listing dollar amounts for a local agency’s specific allocation of program, administration and other amounts for a particular funding or grant source from DOC.
- No Heat** An Energy Programs general term describing a situation where a furnace or heating distribution system is inoperable in a dwelling unit.
- OAH** Minnesota Office of Administrative Hearings (OAH). A state agency established to provide a fair, prompt and impartial hearing process for citizens who disagree with actions taken by State government agencies or funding sources. OAH may be utilized by a WAP or EAP client if their complaint or appeal is not resolved at the local or state level. <http://www.oah.state.mn.us/>
- Off Peak** Electric discount or billing programs often utilizing another fuel type in a dwelling during high electric demand periods.

Office of Energy Security (OES)	The division within the Minnesota Department of Commerce administering all State Energy Programs, including EAP, WAP, CIP and the Minnesota Energy Information Center. Home energy guides and other energy conservation information can be found at: http://www.energy.mn.gov
OMB	U.S. Office of Management and Budget (OMB). A federal agency that maintains all financial management policies for the Federal Government and ensures that federal funds are spent in accordance with applicable laws and regulations. Information can be found at: http://www.whitehouse.gov/omb/
Orifice	An HVAC term for a hole in a gas pipe or nozzle fitting where gas or fuel oil exits to be mixed with air before combustion occurs in the heating chamber.
OSHA	Occupational Safety and Health Administration (OSHA). A federal agency that sets standards for worker safety. Part of the federal Department of Labor (DOL) and is a key resource for lead and WAP work practices. See also LSW. http://www.osha.gov/SLTC/lead/recognition.html
Outreach	Activities that define efforts to specifically reach potential clients or inform low-income households about resources through media, collaboration with human service organizations, one-on-one home visits, or other contacts.
PAC	Policy Advisory Committee (PAC). A group of individuals who advise and recommend on either EAP or WAP program policies, procedures and long-range planning.
Pascal (pa)	A metric unit of pressure, a unit of measure for air or gas pressure. 256 Pascals equal one inch of water column.
Payback Period	The calculated time for any energy savings to be “paid for” by specific energy conservation expenditures. The NEAT software factors cost-effective measures using numerous payback time periods. See also SIR.
Pending	A weatherization or eHEAT term regarding an application that has been received by a local service provider but is being held for additional information.
Perm Rating	A measure of the diffusion of water vapor through a material at a set pressure. Vapor diffusion accounts for a small amount of total moisture in a building. The term is a shortened version of permeance, defined as 1.0 grains of water vapor transmitted per hour per square foot per 1.0 inch of mercury vapor pressure difference. The lower the perm number, the more effective the vapor barrier. Four (4) mil polyethylene has a perm rating of 0.08. See Vapor Barrier.
Photovoltaic (PV)	A solid-state electrical device that converts light into direct current electricity. Solar photovoltaic devices are made of various semi-conductor materials.

Plain Language Requirement	The standard for all Minnesota Energy Programs and weatherization program written materials distributed to clients. The requirement states that all written documents may not use language higher than a sixth grade reading level.
Plenum	The piece of ductwork that connects the air handler to the main supply ducts on a ducting heating system.
Power-Vented	A description for forced-air appliance systems designed so combustion gases are “power vented” to the outdoors by use of a fan. This design is based on a positive pressure induced in the flue for removing all combustion gases. See also Fan-Assisted.
PPM (ppm)	Parts per million. Used with CO standards in determining safety levels and required mechanical work for Minnesota’s Energy Programs. These safety standards are detailed in the Minnesota Mechanical Systems Field Guide . The Field Guide and the standards can be found at: http://www.state.mn.us/mn/externalDocs/Commerce/Mechanical_Systems_Field_Guide_062705033848_MN%20MFG%20Web.pdf
Pre-Code	A WAP term related to building code requirements specifically affecting mobile homes built prior to July 1, 1972. Minnesota building codes usually do not apply to these older manufactured dwellings.
Pressure Balancing	A weatherization activity equalizing pressure by adjusting air flow in supply and return ducts or within rooms. Conducted on dwellings with forced air heating systems. See Room Pressure Imbalances.
Pressure Boundary	The air barrier of a home. See Air Barrier.
Pressure Diagnostics	A weatherization or energy audit activity that measures air pressure differences between outside and inside a dwelling unit’s thermal envelope. It is used as a tool to determine the size of air leaks or bypasses as well as the effectiveness of a contractor’s or crew’s air sealing techniques.
Pressure Pan	A simple tool used to measure duct leaks and pressure differences in the distribution system of a forced air heating plant. It can also be used to block a duct register while measuring the static pressure behind it to determine duct leaks. It can also measure the CFM accuracy on a vent and fan installation.
Primary Air	Is the exact amount of air required to burn or consume a specific amount of fuel for perfect combustion. Since perfect combustion is not achievable additional air (secondary or excess) is required to ensure complete combustion of a fuel. Primary air is introduced at the beginning of the air and fuel mixing zone. See Dilution Air, Secondary Air and Excess Air.

Priority Households	Households with members who are elderly, disabled, or under age 19 and are considered a DOE priority. The term is also used for the designation of high energy burden costs or higher than average primary heating consumption.
Privacy Notice	A document provided to an Energy Program applicant that complies with the federal Privacy Act of 1974. It explains the rights and responsibilities by which Energy Programs and CIP must abide. It is also known as a Tennessean Warning.
Production Reporting	A monthly electronic report of completed work and funding sources. It is provided to DOC and DOE for statistical reporting purposes. It is completed in the form of a “Client Export” in WA and data from eHEAT.
Program Work Plan	Written steps outlining specific local service provider staff activities, budgets and timelines that are attached to DOC contracts and submitted electronically within eHEAT by Minnesota Energy Program grantees.
Propane	Unlike natural gas, propane is heavier than air (1.5 times as dense). In its raw state propane sinks and pools at the floor. Liquid propane will flash to a vapor at atmospheric pressure and appears white due to moisture condensing from the air. Because propane is 270 times more compact as a liquid than as a gas, it is transported and stored in its liquid state. See LP.
Public Housing	Dwellings or living spaces covered by the rules or laws of HUD or other federal, state or municipal government entities. Rent for residents of public housing is calculated on the basis of monthly income. Some pay for heat, others may have neither a heating nor an electric bill account.
PUC	Minnesota Public Utilities Commission (PUC). Comprised of appointed officials and staff responsible for over-seeing all regulated utilities in the State. Information on the PUC is at: http://www.puc.state.mn.us/PUC/aboutus/index.html
PVC	Polyvinyl chloride. A material used in pipe and plastic sheeting. It is biologically and chemically resistant, making it the plastic of choice for most household sewerage pipes and other pipe applications where corrosion would limit the use of metal. With the addition of modifiers and stabilizers, it can be a popular material for window and door frames. By adding plasticizers, it can become flexible enough to be used in cabling applications as a wire insulator.
PY	Public Year. Reference to a grant fund’s federal fiscal year. An example would be the DOE PY’09 funding for WAP.
Radon	A gas that decomposes into radioactive particles, typically coming from the ground through basements. It is colorless, odorless, naturally occurring, and a radioactive noble gas formed from the decay of radium. It is one of the heaviest substances that are gases under normal conditions and is considered a health hazard. Information at: http://www.epa.gov/radon/pubs/citguide.html

Reach Out For Warmth (ROFW)	A State program establishing an emergency fuel fund. Started in 1992 by the Minnesota Legislature. It is funded locally by donations from individuals and corporations with a dollar match from State Energy Programs or EAP funds. http://www.energy.mn.gov
Rebates	An industry or manufacturer determined amount of money provided to a household toward the purchase of an appliance or a furnace. A best practice is to deduct the amount of the rebate from the vendor's bill, usually for any new furnace and provide that to the grantee. It is usually credited as program income for accounting purposes for Minnesota Energy Programs.
Recipient	The direct recipient of federal funds. This term is used in federal OMB circulars. Sometimes "Grantee" is used instead of "recipient" in the circulars. It can also refer to a household or client.
Recovery Efficiency	The description for a water heater's efficiency of heating water to capacity level without regard to standby or distribution losses. See also Energy Factor.
Red Tagged	A notification of an immediate hazard or safety issue related to a furnace or boiler. It always results in the unit being shut off or having its energy source (usually gas or propane) locked or closed to prevent any operation of the heating plant. A "yellow tagged" furnace can still be operated but has been identified with operational problems which require attention or repair. See Yellow-Tagged.
Refrigerant	A special fluid used in air conditioners and heat pumps that releases heats when it condenses from a gas to a liquid and absorbs heat when it evaporates from a liquid to a gas.
Register	The grille or cover over a duct outlet for either warm air distribution or a cold air return in forced air HVAC systems.
Regulated Utilities	A natural gas or electric company whose costs and distribution system is controlled or monitored by the Minnesota Public Utilities Commission (PUC). Non-regulated utilities are not regulated by the PUC and are typically comprised of electric co-ops and municipalities. See PUC.
Relative Humidity	The percent of moisture absorbed in the air compared to the maximum amount possible. Air that is saturated has 100% humidity. See Humidity and Dew Point.
Retrofit	A change in heating plant, construction, or related equipment already in use or operation in order to incorporate improvements in efficiency or distribution or handling. (Example: an oil burner retrofit.)
Return Air	Air that is returned to a heating or cooling appliance from a heated or cooled space.

Re-weatherization	The term or description for going back to a previously weatherized home and using DOE funds for a new or re-weatherization job. This can only take place if the previous weatherization occurred prior to September 30, 1994, and was paid with DOE grant funds. See Callback Event and Rework.
Rework	Follow-up activity which takes place with an existing audit event following a final inspection and before the audit event is completed and locked. It is a general description and not a WA status detail or an event type. It typically occurs when an inspector fails a measure on a final inspection and the job must be redone or corrected in order for the job or measure to be finished and then re-inspected. See also Callback Event.
Rights and Responsibilities	An explanation of the rights of eligible clients and the requirements and responsibilities of Energy Programs. It is explicitly stated on the combined Minnesota Energy Programs application form.
Rim Joist	The outermost joist around the perimeter of the floor framing on site-built construction.
Room Pressure Imbalances	Pressure imbalances happen when conditioned air supplied to a room does not equal the airflow returned to the furnace or air conditioner. In dwellings with forced-air distribution and a central return system, closing bedroom doors can cause the bedrooms to experience a positive pressure and rooms that are open to the return grille see a negative pressure. Atmospherically vented combustion appliances can back draft if they are located in a zone with negative pressure.
R-Value	A measurement of the actual effectiveness of insulation, based on a material's ability to resist conductive heat flow. It is also a thermal resistance rating.
Sash	A movable or stationary part of a window that frames a piece of glass.
Sealed Combustion Heater	A heating appliance system that acquires all its air for combustion through a dedicated sealed passage from the outside. Combustion takes place in a sealed combustion chamber. All combustion products are vented to the outside through a separate sealed vent.
Secondary Air	Improves combustion by ensuring there are enough oxygen molecules for the complete combustion of all carbon and hydrogen molecules being supplied to the combustion zone in a heating unit. See Dilution Air, Primary Air and Excess Air.

SEER	Seasonal Energy Efficiency Ratio (SEER). Measurement of air-conditioning efficiency. The higher the SEER rating of a unit, the more energy efficient it is. The rating is the Btu of cooling output during a typical cooling-season, divided by the total electric energy input in watt-hours during the same period. As of January 2006, all residential air conditioners sold in the United States must have a SEER rating of at least 13. ENERGY STAR qualified central air conditioners must have a SEER of at least 14. Information on appliance standards can be found at: http://www1.eere.energy.gov/buildings/appliance_standards/residential/central_ac_hp.html
Self-employment	A description of work done by a person who has non-wage income. It is used in Energy Programs eligibility determination.
Separate Living Quarters	Living space in which the occupants do not live and eat with any other persons in the structure and have either direct access to the outside of the building through a common hall or complete kitchen facilities for the use of the occupants. The occupants may be a single family or one person living alone.
SER Rehabilitation	Safety, Efficiency and Reliability Rehabilitation. Mechanical procedure performed on heating systems to maximize the appliance efficiency using existing hardware. It is often referred to as a furnace clean and tune. Minnesota WAP standards have required forms for all clean and tune procedures.
Service Areas	A geographic area defined usually by county, city or Tribal boundaries. It is assigned by the State of Minnesota to a specific grantee and defines boundaries for client intake or a program service contract. A Service Provider (SP) delivers DOC Energy Program contracts for a specific service area.
Settling	A general term referring to the effect of insulation compressing over time and, thereby, reducing the overall energy efficiency of the materials. This process is the result of using too much air when installing blown-in insulation. Commonly called “fluffing,” where materials settle over a long period of time.
Shading Coefficient (SC)	A measure of how much solar energy is transmitted through a window opening compared to a clear single glass which has an SC of 1.0. Reflective glasses have a SC of .20 to .45. The DOE site on shading with links to individual states can be found at: http://www.energycodes.gov/federal/acp_scip.stm
Sheeting	Any structural material, attached on top of the framing, underneath the siding and roofing of a building.
Sill	The bottom horizontal portion of a window or door frame.
Single Family Dwelling	An architectural or building term referring to a living structure occupied by one or more individuals, who may or may not be related by family or marriage. (A multi-family structure contains five or more dwelling units.)

SIR Calculation	Savings-to-Investment Ratio measurement. Calculation which determines cost effectiveness and payback for specific weatherization measures. All Energy Program conservation measures must be cost-effective, based on “payback” calculations contained within the Weatherization Assistant (WA) software. A minimum SIR of one (1) is required for all WAP conservation measures.
Site Built	Homes that are constructed entirely at the building site.
Sling Psychrometer	A device holding two thermometers that is slung through the air to measure relative humidity.
Smoke Detector	A battery-operated or hard-wired (permanently running on the household’s 110 electric current) device which emits an alarm after reading fixed levels of smoke or high heat temperatures in a room. Sometimes referred to as smoke alarm. Some CO alarms can also function as a smoke alarm. The Minnesota Department of Labor and Industry’s site on smoke alarms is at: http://74.125.95.132/search?q=cache:Y1qi-nolce0J:www.doli.state.mn.us/CCLD/PDF/bc_websmoke_co_06_07.pdf+MN+code+for+smoke+detectors&cd=1&hl=en&ct=clnk&gl=us
Soffit	The underside of a roof overhang or a small lowered ceiling, as above cabinets or a bathtub.
Solar Heat Gain	Solar heat gain coefficient (SHGC) is the ratio of solar heat gain through a window to incidental solar heat. It includes both transmitted heat and absorbed and reradiated heat. Information from DOE: http://www.energycodes.gov/support/shgc_faq.stm
Sone	Measurement of noise used in rating exhaust fans. Newer bathroom style fans have sone ratings from 1.3 to 4.0 for their noise level measurement. Minnesota code requires surface mounted fans used to comply with the continuous ventilation part of the mechanical ventilation system must have a maximum 1.0 sone per HVI Standard 915. Fans used to comply with the intermittent ventilation part of the mechanical ventilation system must have a maximum 2.5 sone per HVI Standard 915. (Minn. Rules Part 1322.1104 – amendment to the International Residential Code relating to ventilation system requirements: exhaust systems.)
SP	Service Provider. The abbreviation used in eHEAT for grantees delivering EAP or WAP services at the local level.
Space Heater	A small, usually gas or propane, heating device that has no distribution system but often has a flue to the outdoors for combustion gases. Electric space heaters require no flue.
Spillage	Temporary flow of combustion gases from a dilution device on a combustion appliance. See Back-Drafting.

SSA	Social Security Administration. Federal agency that administers programs such as Social Security, SSI and Medicare. http://www.ssa.gov/
SSE	Steady State Efficiency (SSE) measures how a furnace converts fuel to heat once the furnace has warmed up and is running steadily. It is generally measured as a percentage. However, furnaces cycle on and off in order to maintain a desired temperature and they typically do not operate as efficiently as they start up and cool down. As a result, steady state efficiency is not as reliable an indicator of the overall efficiency of a furnace as AFUE. For example, a furnace that outputs 62,000 BTUs per hour (once it has warmed up) and requires 75,000 BTU of fuel has a SSE of $62,000 / 75,000 = 83\%$. See also AFUE.
SSI	Supplemental Security Income. Federal income supplement program. For WAP purposes, if any member of the WAP household receives SSI, the family categorically is eligible for DOE weatherization services, even if they are over the income guidelines for EAP. They are not eligible for EAP/WX funding. See also SS. More information can be found at: http://www.ssa.gov/ssi/
Stack Effect	A draft established in a building from air infiltrating low and exfiltrating high. It is the effect of higher pressure at the top of a structure, lower pressure at the bottom of a structure, and neutral pressure somewhere in between, relative to the ambient (surrounding) air pressure. It is usually the result of different densities of warmer and cooler air creating a convective airflow.
Stack Temperature	A measurement of the temperature of combustion gases in the flue. The temperature has a direct relationship to the efficiency of a heating system. See Net Stack Temperature.
Standalone Event	The eHEAT description where a WAP event is created but no weatherization audit is done and no conservation measures are done on the dwelling. This is almost always a mechanical situation addressing or remedying a primary heating system or domestic water heater safety issue. See also Callback Event.
Standing Loss	A general HVAC term for describing heat losses in appliances, typically applied to a hot water storage tank referring to the heat loss taking place through its shell.
State Median Income (SMI)	State median income (SMI) guidelines are issued annually by the federal Department of Health and Human Services (HHS) and are the standard used in Minnesota to determine maximum allowable income for both the Energy Assistance and WAP eligibility. (Minnesota guidelines are based on 50% of the SMI or 110% of the federal poverty guidelines, whichever is greater.) The State's PY2009 program income guideline for a household of two was \$27,702, approximately 180% of the federal poverty guideline. The HHS link to poverty guidelines and information is at: http://aspe.hhs.gov/poverty/09poverty.shtml

Stay Warm Minnesota	An Internet resource where Minnesotans can get information on keeping their homes warm. The site was created by DOC with help from the Department of Human Services, other state agencies, major utilities and nonprofit organizations in the fields of energy and social services. The site includes information on energy efficiency and conservation, heating assistance programs, winter safety tips and links to local, state and national energy web sites. http://www.staywarm.mn.gov/ .
Stop	A thin trim board for windows and/or doors to close against or slide against.
Stories Above Grade	A weatherization description for a basement or lower level (as on a split level dwelling) that is partially in the ground. At least 40% of the walls must be above ground level to count as one-half of a story or level.
Storm Window	A window or glazing material placed outside or inside a window creating an insulating air space.
Subgrantee	The legal entity which receives a grant or contract from the State. The subgrantee is accountable to the grantee for the use of provided funds. The State often refers to contracted Energy Program agencies as subgrantees.
Subsidized Housing	Financially assisted rental housing administered by HUD. A varying portion of a person's or family's monthly housing costs are subsidized in order that the housing costs are affordable. The financial assistance amount is determined by the monthly income of the household. In some unique cases, a multi-unit rental building can be subsidized by HUD, but the individual renters in the building are not subsidized. Some subsidized units have their heat included in the rent and only have an electric account they are responsible for paying. In other cases both heat and electric are included in the rent.
Supplemental Heat	A fuel type which is not the primary heating source for a dwelling. Supplemental heating costs are added to the primary heat amount to calculate the total heat costs.
Supply Air	Air that has been heated or cooled and is then moved through the supply ducts and out supply registers of a home or dwelling.
Surety Bond	A State requirement for any person in Minnesota contracting to do gas, heating, ventilation, cooling, air conditioning, fuel burning or refrigeration work. The bond is in the amount of \$25,000 and is for the benefit of persons suffering financial loss by reason of a contractor's failure to comply with the State Mechanical Code.
TANF	Temporary Assistance for Needy Families. Federal assistance program formerly known as "welfare." It began on July 1, 1997, and succeeded the Aid to Families with Dependent Children (AFDC) program, providing cash assistance to families with dependent children. Prior to 1997, eligibility was determined by the federal government which administered the program.

Tar Sands	Naturally occurring bitumen-impregnated sands that yield mixtures of liquid hydrocarbon and that require further processing other than mechanical blending before becoming finished petroleum products.
TDD/TTY	Telecommunications Device for the Deaf / TeleTYpewriter. A user terminal with keyboard input and printer or display output used by the hearing and speech impaired. The device contains a modem and is used over a phone line. If a recipient does not have a corresponding terminal device, TDD/TTY users dial a relay service composed of operators who receive the typed messages, call the recipients and speak the messages to them. The operators also type the responses back to the TDD/TTY user.
Temperature Rise Test	The measurement conducted on a furnace by taking the temperature of air entering the furnace and of the air exiting the furnace. The difference between these two temperatures is known as the temperature rise and is compared to the normal range indicated on the nameplate to verify proper operation of the furnace.
Tennessen Warning	The specific name of a document that a government entity provides to a client when asking them for private or confidential data. The purpose of the notice is to enable a person to make an informed decision about whether to share private data about themselves. Minnesota Energy Programs use a Tennessen Warning on the client application.
<i>The Energizer</i>	A DOC electronically issued newsletter published and distributed to the EAP Coordinators and shared with WAP Coordinators, covering EAP policy updates as well as weekly information regarding eHEAT and Minnesota Energy Programs.
Therm	A unit of energy equaling 100,000 BTUs or 29.3 kWhs. The name comes from the Greek word for heat. It is the energy equivalent of burning 100 cubic feet (1 Ccf) of natural gas. A “therm factor” is used by gas companies to convert the volume of gas used, to its heat equivalent, and thus calculate the actual energy use.
Thermal Break	A piece of relatively low conducting material between two high conducting materials. An example would be resin on metal framing.
Thermal Bypass	An opening that allows air movement between conditioned and unconditioned space in a dwelling. See also Bypass.
Thermal Envelope	The boundary of the conditioned area within the building shell. It is sometimes referred to as the thermal boundary.
Thermal Resistance	Same as R-value, expressing the ability to retard heat flow. The insulation R-value of blown cellulose is 3.70 per inch. The EERE consumer guide to R-values is at: http://apps1.eere.energy.gov/consumer/your_home/insulation_airsealing/index.cfm/mytopic=11340

Thermalcouple	A bimetal-junction electric generator used to keep the safety value of an automatic gas valve open. It sends a signal to the gas valve to let it know there is a standing pilot light and it opens the main gas valve to the main burner.
Thermo-dynamics	A study of the transformation of energy from one form to another, and its practical application.
Timeliness of Service	The WAP standard used to describe processing an application or doing weatherization work. No more than 90 days should elapse between the energy conservation audit and the final inspection for each weatherization job.
Transitional Housing	Housing paid for with federal or state housing funds which are used by people who have been homeless, imprisoned or unable to find adequate shelter due to limited financial resources.
Tribal Governments	The legal or incorporated governments of Minnesota's Sioux and Ojibwa Native American Reservation communities.
T&TA	Training and Technical Assistance (T&TA), a budget line-item or program description used by DOE funding for individualized or group training on weatherization programs. Grantees receive a specific yearly allocation for T&TA.
UI	Minnesota's Unemployment Insurance (UI). Information and links can be found at the web site: http://www.uimn.org/
UL	Underwriters Laboratories (UL), an independent product safety certification organization which has been testing products and writing "Standards for Safety" for over a century. UL staff evaluates more than 19,000 types of products, components, materials and systems annually. http://www.ul.com/
Unconditioned Space	An area within the building envelope that is not intentionally heated. An example would be a basement not used for living and not heated, and typically considered unconditioned space.
Unvented Appliance	A combustion appliance which vents combustion gases into the living space instead of outside as does a vented appliance.
Utility	Natural gas or electric companies whose products or services are usually "metered" and directly connected to a household by wire or pipeline. The Public Utilities Commission (PUC) regulates some larger utilities but most municipal and electric co-operative utilities in Minnesota are not regulated. Links and info on utilities: http://www.state.mn.us/portal/mn/jsp/content.do?id=-536893853&agency=Energy See also PUC.
U-value	The amount of heat which flows through a square foot of building cross-section with multiple slabs of materials. Also know as U-factor when applied to windows.

Vapor Barrier	<p>A material that retards the passage of water vapor. Permeability, rated in perms, is a measure of the rate of transfer of water vapor through a vapor barrier material. 1 perm = 1 grain/sf-hour per inch of mercury pressure. Vapor retarders have permeability ratings of 1.0 or lower. Polyethylene sheeting and aluminum foil are common vapor barriers. Vapor barriers in cold climates are always on the interior surfaces of walls and ceilings. The term is more accurately described as a vapor diffusion retarder. See Perm Rating.</p> <p>http://www.energysavers.gov/your_home/insulation_airsealing/index.cfm/mytopic=11810</p>
Vendor	A private business or corporation that signs an agreement with an EAP or WAP delivery agency in order to receive funds for specific services performed.
Ventilation	The movement of air through an area for the purpose of removing moisture, air pollution or unwanted heat.
Venting	A general term for flues, vent connectors and/or a chimney which exhausts combustion gases or conditioned air out of a dwelling.
Verification	Documentation of income or other eHEAT eligibility requirements for Minnesota Energy Programs.
Vermiculite	A heat-expanded mineral sometimes used for insulation, often seen in older homes. It should be handled with care due to respiratory concerns related to the product.
Vulnerability	An Energy Programs term to describe a client or household who is adversely subject to temperature or rising fuel price changes.
WA	Weatherization Assistant. DOE software to determine cost-effective conservation and weatherization measures on site-built (NEAT) and mobile homes (MHEA). WA also contains extensive reports available to the State and local agency WAP staff. See also NEAT and MHEA.
WAP	Weatherization Assistance Program (WAP). Federal program created in 1976 to enable low-income families to permanently reduce their energy bills by making homes more energy efficient. The primary funding source is DOE but can be combined with other sources, such as ERR, EAP/WX and CIP.
WAP Queue	An eHEAT term for WAP eligible households that are placed on an electronic list or 'queue,' and can be chosen for a WAP audit, a callback or a standalone activity done for the household.
WAPTAC	Weatherization Assistance Program Technical Assistance Center (WAPTAC), an organization and web site providing weatherization practitioners and other energy conservation professionals with information related to WAP and its partnerships with other stakeholders. http://www.waptac.org/

Warrants	A general term for a payment. In the case of EAP primary heat grants, warrants are distributed by the State of Minnesota and are centrally paid and electronically processed by the State. See also EFT.
Weatherization	Conservation activities applied to a dwelling which conserve heating and cooling, maintain temperature and provide a safe and healthy living environment. Weatherization also refers to a specific DOE funded program for low income households. Sometimes abbreviated by WAP or WX. See WAP.
Weatherization Assistant (WA)	DOE and Minnesota specific energy auditing software used to calculate conservation measures. See WA.
Weatherization Priority	A system to determine the order in which households receive WAP conservation measures. Priority is determined by DOE rules or a demographic classification based on individuals who occupy the dwelling. Elderly, disabled, high consumption households and families with children receive first consideration for weatherization.
Weather-stripping	Using flexible gaskets or seals, sometimes mounted in rigid metal strips, for limiting air leakage. It is also the general term for low-cost energy conservation measures used around doors or windows to stop air leaks and reduce heating and cooling losses.
Wet Spray	Description for an application of insulation usually done in crawlspaces or on foundations. It is cellulose insulation which is mixed or treated with various chemicals (up to 25% by weight) to reduce its flammability. It is installed in conjunction with water spray and an adhesive so that it adheres to dry open wall cavities. It is then typically covered with sheetrock or a protective coating.
Window Films	Plastic films coated with a metalized reflective surface that are adhered to window glass to reflect heat rays and reduce heat gain.
Window U Factor	A measurement of how well a window prevents heat from escaping. The rate of heat loss is indicated in terms of the U-factor of a window assembly. U-factor ratings generally fall between 0.20 and 1.20. In the United States the U-factor is usually expressed in BTU/h ft ² F. (Insulating value is indicated by R-value, which is the inverse of the U-factor.) The lower the U-factor, the greater a window's resistance to heat flow and the better its insulating value. See R-Value.
Work Order	A WA software and electronic tracking system for the forms, measure types and various 'statuses' associated with audit event work orders and mechanical work.
Worst Case Draft Test	A procedure which measures adequate venting of all combustion appliances once weatherization measures are completed on a dwelling. The test ensures that no back drafting occurs, putting dangerous gases into a home or living space when all combustion appliances and exhaust equipment are operating. Sometimes referred to as a Worst Case Depressurization Test.

- WRT** With reference to (WRT), an abbreviation used with pressure diagnostic readings and blower door tests when a reading is compared to, or with reference to, an outside pressure reading. Also used with comparisons inside the dwelling and/or with furnace duct testing work.
- WX** An abbreviation for the Weatherization Assistance Program. It funds residential conservation and mechanical services to Energy Program eligible clients funded through the DOE. See also WAP.
- Yellow Tagged** Notification on a furnace that has been identified with specific operational or safety problems requiring attention or repair. A “Yellow Tagged” furnace can still be operated (unlike a “Red Tagged” furnace). See also Red Tagged.
- Zone** A room or portion of a building separated from other rooms by an air barrier – not usually an effective air barrier. Also used to describe heating zones in a building or dwelling.
- Zone Pressure Diagnostics** Test procedures used with the blower door to locate and measure the size of air leakages in attics or knee wall spaces and determine bypasses.
- Zoned-out** Physical or exhausted emotional state occurring when administering ARRA funds or learning eHEAT terms and details related to WA software and WAP.